REMARKS

This paper is responsive to the Office Action mailed October 10, 2008. Upon entry of the present Amendment, claim 1 will have been amended and claims 4 - 6 will have been cancelled without prejudice or disclaimer, and while reserving the right to pursue these claims in one or more divisional or continuation applications.. Applicants note that the subject matter of claims 4-6 have been incorporated into claim 1 and thus, no new matter has been added. Thus, upon entry of this Amendment, claims 1-3 are the claims under consideration by the Examiner, of which claim 1 is independent.

Specification

The Office Action asserts that the Abstract, as filed, requires correction. Applicants respectfully note that amendments have been made to the Abstract, with special attention to the Examiner's comments. Applicants respectfully submit that the objection has been overcome and respectfully request withdrawal of this objection.

Art Based Rejections

The Office Action rejects claims 1-6 under 35 U.S.C. § 103(a) as being unpatentable over Kai (6,043,156) as evidenced by Iizuka (US 2004/0072437) or Netsu el al. (6,099,748).

The Office Action alleges that Kai discloses all the features of the pending claims and acknowledges that Kai fails to specify a concentration of sodium hydroxide, a polishing removal depth in the wafer surfaces, and the difference between removal depth A and removal depth B (Office Action, pg 3).

The Office Action attempts to cure the deficiencies of Kai by asserting that "Kai discloses that the removal depth of surface A and B may be adjusted using the turning speed of

the turn table depending on the requirement of the product (col. 3, lines 27-46), this evidencing that such parameters are result-effective variables" (Office Action, pg. 3). The Office Action further asserts that "in the absence of showing criticality or new, unexpected results, a person having ordinary skill in the art would have found it obvious to modify the prior art by performing routine experiments (by using different process parameters) to obtain optimal result with a reasonable expectation of success).

Applicants respectfully note that claim 1 has been amended to even further clarify the features of the pending claims. Applicants respectfully note that claims 4 - 6 are cancelled upon entry of this Amendment and submit that the rejection has been rendered moot at least with respect to claims 4 - 6. Applicants further note that upon entry of the present amendment, the subject matter of prior claims 4 - 6 will have been incorporated into claim 1. Thus, Applicants provide discussion in order to address the Examiner's assertions with respect to prior claims 4 – 6 as applying to currently amended claim 1.

Applicants respectfully submit that the Office Action fails to establish a *prima facie* case of obviousness. In establishing a *prima facie* case of obviousness, the Manual of Patent Examining Procedure (MPEP) sets forth three basic requirements. In particular, there must be 1) some motivation (or at least some "reason") to combine the cited references (MPEP 2143.01); 2) a reasonable expectation of success (MPEP 2143.02); and 3) the combination teaches each and every element of the claimed invention (MPEP 2143.03).

Applicants note that the hypothetical combination suggested by the Office Action fails to disclose or suggest each and every element of the claimed invention. In particular, Applicants note that the cited documents fail to disclose or suggest, singularly or in combination, the specific depths of etching and polishing removal required by amended claim 1 in terms of each

respective surface as well as the difference between the front and rear surfaces. Notwithstanding the Office's assertions that "the removal depth of surface A and B may be adjusted using the turning speed of the turn table depending on the requirement of the product (col. 3, lines 27-46), this evidencing that such parameters are result-effective variables" (Office Action, pg. 3), Applicants respectfully submit that the rejection is improper because there is no indication that the difference between A and B is suggested as a result-effective variable. Moreover, Applicants note that the MPEP § 2144.05 establishes that result effective variables may be optimized. However, Applicants submit that this optimization applies "[i]n the case where the claimed ranges 'overlap or lie inside ranges disclosed by the prior art'." (MPEP 2144.05, subsection I). Thus, as the Office Action fails to establish that at least a difference between the front and rear surfaces is necessarily disclosed and within the range expressly recited in amended claim 1, the discussion regarding result-effective variables is moot.

Further, assuming, *arguendo*, that Kai suggests that the removal polishing depth of the front and/or rear surface may be adjusted using the turning speed of the turn table depending on the requirement of the product (Office Action, pg. 3), Kai fails to disclose the differential polishing removal required in the double surface simultaneous polishing process by using the specific conditions, wherein a flow rate of abrasive supplied to the wafer is made 1 to 20 L/min, a loading capacity of an upper lapping plate is made 50 to 500 g/cm2, and a ratio of a lower lapping plate number of rotations to the upper lapping plate number of rotations is taken as the upper lapping plate: the lower lapping plate = 1.2 to 20 as claimed in amended claim 1.

The Office Action relies on Iizuki in part as allegedly providing evidence that the mixing ratio of the acids is a result effective variable. Applicants note, however, that even if, *arguendo*, Iizuki suggests that an etching rate and the condition of a wafer surface of the mixed acid, Iizuka

fails to disclose the specific mixing ratio of hydrofluoric acid, nitric acid, acetic acid and water depending on the wafer resistivity in accordance with amended claim 1.

Applicants respectfully submit that a person of ordinary skill in the art would not have found the above-mentioned specific depths of etching and polishing removal, the specific differential polishing removal using the specific condition as well as the specific mixing ratio of the acids depending on the wafer resistivity by performing routine experiments to obtain optimal result with a reasonable expectation of success.

Applicants further note that with respect to prior claims 5 and 6, the cited documents are silent, and the Office Action fails to establish, that any specific mixture for the acid etching solution should be employed. Moreover, the cited documents and the Office Action fail to teach or suggest that an acid etching rate is dependent on resistivity of the wafer. Applicants respectfully submit that the rejections of prior claims 5 and 6 are rendered moot in view of the amendments. However, Applicants note that even if result effective variables could be optimized, the cited documents fail to teach or suggest features expressly recited in prior claims 5 and 6 (now recited in amended claim 1), and as such, the Office's arguments that optimization of result effective variables would render the pending claims obvious is rendered moot.

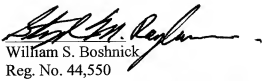
For at least the foregoing reasons, Applicants respectfully submit that amended claim 1 is neither anticipated nor obvious, and thus allowable, over the cited documents. Applicants further submit that claims 2 – 3 are also allowable at least for the reason that they depend from an allowable base claim and because they recite additional features that further define the present invention that are neither anticipated nor obvious over the cited documents.

CONCLUSION

For at least the foregoing reasons, it is respectfully submitted that all pending claims are patentably distinct over the documents employed in the rejection of record. Applicants request reconsideration and withdrawal of the rejections of record. Allowance of the application with an early mailing date of the Notices of Allowance and Allowability is therefore respectfully requested.

If there should be any questions, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully Submitted,
Sakae KOYATA et al.



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